Exploring the relationship between mechanisms, actors and instruments in Supply Chain Finance: A systematic literature review

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Abstract

Supply Chain Finance (SCF) deals with the management of financial flows along the supply chain. Its core objective is to facilitate the reduction of financial risk in a supply chain by improving the collaborative cash-to-cash cycle and working capital. In order to fulfil its objective, SCF involves the coordination of supply chain actors, SCF instruments, and supply chain processes. Existing studies focus either on SCF actors, such as buyers, suppliers, banks, and logistics service providers (LSPs), or on specific SCF instruments, such as reverse factoring, inventory financing and discounting. However, an analysis of the relationship between actors and instruments, as well as of the factors influencing this relationship, requires further development. In light of this gap, this paper systematically reviews the literature on SCF with the objective of clarifying the relationship between SCF actors, instruments, and contextual factors. The review identified three main archetypes for this relationship: fixed-asset financing (fixed asset-centric), inventory financing (inventory-centric), accounts receivable/accounts payable financing (buyer-centric and supplier-centric). Based on the results of the review, the authors discuss the implications for practitioners and further research for academics.

Keywords

Systematic literature review; supply chain finance; archetypes; enablers; inhibitors; financial benefits

1. Introduction

Supply Chain Finance (SCF) aims at aligning material, information, and financial flows. It has become a 'Key-term' among academics and practitioners, indicating the planning, steering, and controlling of financial flows along a supply chain (Hofmann, 2005; Pfohl and Gomm, 2009; Bryant and Camerinelli, 2014; Liebl et al., 2016). The research on SCF is predominantly developed on the supply side. It is primarily localised in the literature on the interface between operations and finance (Zhao and Huchzermeier, 2015; Yan et al., 2016) and the interface between logistics and finance (Buzacott and Zhang, 2004; Hofmann, 2009; Gupta and Dutta, 2011; Protopappa-sieke and Seifert, 2011; Liebl et al., 2016). The growing relevance of SCF originates from its multifaceted benefits for the performance of supply chains. The main benefits include enhancing integration among customers, suppliers and service providers (Caniato et al., 2016) as well as creating an alternative source of competitive advantage (Pfohl and Gomm, 2009; Wuttke et al., 2016). SCF also links the supply chain metrics with the financial metrics to have a tight integration between physical operations, exchange of data and information and injections of liquidity (Camerinelli, 2009). In addition to the benefits stated above, SCF adopters achieve supplementary benefits, including lower unit costs of procured goods, a less risky supplier base, fewer supply disruptions, extended payment terms, lower production costs, lower days sales outstanding, improved business continuity and obtaining trade credit/finance at lower rates (Evans and Koch, 2007; Sadlovska, 2007).

Over the last decade, the adoption of SCF has seen consistent growth. An early survey in 2007 conducted by the Aberdeen Group (Sadlovska, 2007) revealed that 15% of companies surveyed were actively using SCF instruments, 18% were planning to enhance SCF practices and 40% were investigating options to implement SCF instruments. In 2008, a study conducted by Demica (2008) estimated that there had been a 65% increase in the volume of

SCF in 2007, compared to 2006. During the same year, Phillip Kerle in his study on the trends in SCF estimated that by April 2008, the number of corporations adopting SCF had risen from 9% to 14% – with a further 24% actively investigating an SCF programme for their suppliers (Kerle, 2008). The forecasts suggest that SCF implementation and adoption is growing at an estimated growth touching double-digit figures (Cavenaghi, 2013). In general, the SCF growth rate in developed countries ranges from 10 to 30% and in developing countries from 20 to 25% per annum (Bryant and Camerinelli, 2014). In 2016, there was an increase of 36% in SCF global volume as compared to 2015 (BCR, 2017). Furthermore, across the globe, SCF as a percentage of total trade finance revenue pool, increased from 42% to 57% from 2010 till 2016 (Sommer and O'Kelly, 2017).

The two major research streams that relate to SCF are Financial Supply Chain Management (FSCM) and trade credit (Gelsomino et al., 2016; Chakuu et al., 2017). In the literature, FSCM is used as an umbrella term mainly focusing on the supplier-buyer relationships and the flow of cash running parallel to the physical and informational flows (Sugirin, 2009; Popa, 2013; Wuttke et al., 2013b; Liebl et al., 2016). In general, SCF is considered a sub-set of FSCM. SCF includes a range of financial instruments that are taken into account under its service portfolio. This differentiation between SCF and FSCM is supported in the literature (Popa, 2013; Gelsomino et al., 2016; Hofmann and Johnson, 2016; Liebl et al., 2016). Exceptions include FSCM being considered the same as SCF, and defined as an optimised planning, managing, and controlling of supply chain cash flows (Sugirin, 2009; Wuttke et al., 2013b), and SCF being limited in scope by considering it as a financing instrument, such as reverse factoring (Wuttke et al., 2013b) and logistics financing (Chen and Cai, 2011; Liu et al., 2015).

The financial literature on short-term financing in the supply chain revolves around trade credit (Wuttke et al., 2013b). There is a significant overlap between the literature on trade

credit and SCF (Gelsomino et al., 2016). Authors have argued that SCF involves the mechanisms of trade credit (Dello Iacono et al., 2015; Caniato et al., 2016; Gelsomino et al., 2016; Hofmann and Johnson, 2016; Wuttke et al., 2016; Yan et al., 2016) and it came into existence due to the tightening of trade credit (Kerle, 2009; van der Vliet et al., 2015; Wuttke et al., 2016). Trade credit policies enable the cash flow management fundamental to SCF by involving both payment term solutions and pre-payment solutions (reverse trade credit) (Daripa and Nilsen, 2011; Mateut, 2014; Yano and Shiraishi, 2016) in the supply chain.

Despite its importance, research on SCF is still in its relative infancy. Gelsomino et al. (2016) provide a comprehensive literature review highlighting the scope and definitions of SCF. Other studies focus exclusively on a particular set of actors and instruments. A comprehensive taxonomy for describing the SCF concept and SCF instruments is still missing (Gelsomino et al., 2016). Furthermore, due to the lack of a comprehensive review on SCF actors, instruments, involved processes, SCF benefits and SCF adoption (Wuttke et al., 2013a; Caniato et al., 2016; Gelsomino et al., 2016; Liebl et al., 2016), the aspects associated with the mechanisms and relationships in SCF are at their nascent stage.

Through a Systematic Literature Review (SLR), this paper aims to characterise SCF instruments that different actors can implement to improve the performance of processes and finances in the supply chain. Additionally, it will also identify the enablers and inhibitors for the implementation of SCF instruments by the different SCF actors. This paper begins with a description of the SLR methodology used in this study. The results follow with a descriptive analysis of the publications selected for the review and a discussion of constructs identified from the literature, which constitute the SCF actors, SCF instruments, supply chain processes and triggers, enablers and inhibitors, and financial benefits. Based on the reductionist approach, this paper further develops SCF archetypes relating to the constructs. Finally, the implications and limitations are discussed in the discussion and conclusion.

2. Method

An SLR methodology was selected, as it is an evidence-based, replicable, scientific and transparent approach for minimising bias during the thorough analysis and summarisation of the existing literature. It locates existing studies, evaluates contributions, analyses and synthesises data, and reports reasonably clear conclusions (Denyer and Tranfield, 2009). The SLR adopts a systematic method to identify patterns, themes, variables, and the conceptual contents of the field. The authors of this paper have, however, followed the framework proposed by Tranfield et al. (2003) and Denyer and Tranfield (2009). The framework is comprised of five main steps: question formulation; locating studies; study selection and evaluation; analysis and synthesis; reporting and using results.

In order to clarify the review questions, evaluate a set of review procedures and improve the utilisation of findings from the SLR, a review advisory panel was involved. This panel consisted of six different stakeholders with considerable experience in the areas of SCF, trade credit, supply chain management (SCM), and research methodologies. Detailed information on the background of the participants of the review advisory panel and their role throughout the SLR process are presented in Appendix A (see Table A.1).

The remainder of this section will now discuss each SLR step in turn.

2.1 Questions formulation

Based on the aim of the research, this SLR addresses two main review questions:

RQ1: What are the SCF instruments that different actors can implement to improve the performance of supply chain processes and finances in the supply chain?

RQ2: What are the enablers and inhibitors for the implementation of SCF instruments by the different actors?

As illustrated in Table 1, the primary research questions were supported by a number of sub-research questions to enable a comprehensive and transparent investigation.

Table 1 Research questions

Sub Research Questions	Research Question 1	Research Question 2
	What are the SCF instruments that different actors can implement to improve the performance of supply chain processes and finances in the supply chain?	*What are the enablers and inhibitors for the implementation of SCF instruments by the different actors?*
SCF Actors	• What are the current SCF actors? • What are the potential alternative SCF actors? • What SCF instruments can a particular actor implement?	
SCF Instruments	• What are the SCF instruments currently used? • What are the SCF instruments potentially available? What are the main characteristics of SCF instruments?	
Processes	• What supply chain processes do SCF instruments affect? • How do SCF instruments affect supply chain processes?	
Enablers and Inhibitors		• What are the enablers for the implementation of SCF instruments? • What are the inhibitors for the implementation of the SCF instruments?
Financial benefits	• What potential financial benefits can SCF actors achieve?	

2.2 Locating Studies

The next step was to search the literature and locate the relevant studies. This step aimed to locate and appraise as much relevant literature as possible. A key decision to be taken at this step was the selection of search terms, phrases, search strings, and search engines. After consultation with the review advisory panel, four search engines were chosen: ProQuest – ABI/INFORM Global, EBSCOhost, Web of Science and Scopus.

As illustrated in Table 2, two different search strings were used to ensure that papers adopting varied nomenclature were identified. The search terms were used to construct the search strings with Boolean operators. These search strings were then applied to search the papers in four search engines.

The search was limited to the searching criteria based on the month and year of publication (January 1995 – May 2017), language (English), source type (academic journals) and journal quality (peer-reviewed).

Table 2 Database search strings

No.	Actual search strings	ProQuest (ABI/ Inform Global	EBSCOhost	Web of Science	Scopus
1.	(“supply chain*” OR “demand chain*” OR “value chain*” OR “distribution chain*” OR “supply network*” OR “distribution network*” OR “value network*”) AND (“financ*” OR “cash” OR “mone*”) AND (“Proces*” OR “flows” OR “framework” OR “approach” OR “instrument*” OR “solution*” OR “tool*” OR “mechanism*” OR “servic*” OR “actor*” OR “provider*” OR “Part*” OR “player*” OR “participant*” OR “enable*” OR “facilitat*” OR “operat*” OR “implement*” OR “opportunit*” OR “inhibit*” OR “barrier*” OR “challenge*” OR “issue*”)	1608	1211	2759	3084
2.	“Supply Chain Financ*” OR “Financial supply chain*” OR “Supplier Financ*” OR “Trade Financ*” OR “Trade Credit*” OR “Import Financ*” OR “Export Financ*” OR “reverse factor*” OR “dynamic discount*” OR “Inventory Financ*” OR “Vendor financ*”	706	1118	1231	1578

The main aim of using the search strings was to locate the papers relevant to the main review questions and sub research questions. Search string 1 is based on the combination of search terms from the domains related to “Supply Chain”, “Finance”, and “Operating models”. The operating model domain includes instruments and processes, actors, enablers and inhibitors. Table 3 presents the split of search string 1 into different domains.

Table 3 Search string 1

Domain	String	Reasons for inclusion
Supply chain management	(“supply chain*” OR “demand chain*” OR “value chain*” OR “distribution chain*” OR “supply network*” OR “distribution network*” OR “value network*”) AND	Limiting the domain to SCM.
Finance	(“financ*” OR “cash” OR “mone*”) AND	Restriction to finance papers.
Operating models	(“Proces*” OR “flows” OR “framework” OR “approach” OR “instrument*” OR “solution*” OR “tool*” OR “mechanism*” OR “servic*”	Identification of SCF instruments and processes.
	OR “actor*” OR “provider*” OR “Part*” OR “player*” OR “participant*”	Identification of SCF actors.
	OR “enable*” OR “facilitat*” OR “operat*” OR “implement*” OR “opportunit*”	Identification of enablers.
	OR “inhibit*” OR “barrier*” OR “challenge*” OR “issue*”)	Identification of inhibitors.

Search string 2 is used to include the papers presenting the distinct perspectives of SCF (proposed by different schools of thought). Table 4 presents search string 2 along with the reasons for inclusion.

Table 4 Search string 2

Domain	String	Reasons for inclusion (Schools of thought)
Supply chain Finance	"Supply Chain Financ*" OR "Financial supply chain*" OR "Supplier Financ*"	• Supply Chain Finance: Considers SCF as a field involving various financial instruments directed towards supply chains. • Financial supply chain management: Considers SCF as a subset of FSCM. • Supplier finance: Considers only buyer-centric instruments as SCF.
	OR "Trade Financ*" OR "Trade Credit*"	• Trade Finance: Considers financial instruments used by banks as a part of SCF. • Trade credit: Considers SCF as an extension of traditional trade credit.
	OR "Import Financ*" OR "Export Financ*"	• Import finance: Considers differentiation of instruments for imports. • Export finance: Considers differentiation of instruments for export market.
	OR "reverse factor*"	• Reverse factoring: Considers reverse factoring instrument as SCF in itself.
	OR "dynamic discount*"	• Dynamic discounting: Considers dynamic discounting instrument as SCF in itself.
	OR "Inventory Financ*"	• Inventory financing: Considers inventory financing instrument as SCF in itself. It is most commonly used in the Chinese SCF market.
	OR "Vendor financ*"	• Vendor finance: Considers deferred loans and equity financing as a part of SCF.

After the completion of searching databases and removing duplicates, 1,057 papers were selected for further analysis.

2.3 Study selection and evaluation

As the SCF field is a fragmented field of research, the authors did not reduce the number of papers further by refining the search strings. Instead, inclusion and exclusion criteria and quality assessment were used to filter out the studies. One of the most important requirements for this step was the usage of explicit criteria to evaluate the relevance of each paper in terms of the review questions. A two-step inclusion and exclusion process was used to filter out the papers. Figure 1 shows the entire process related to the selection of papers for complete analysis.

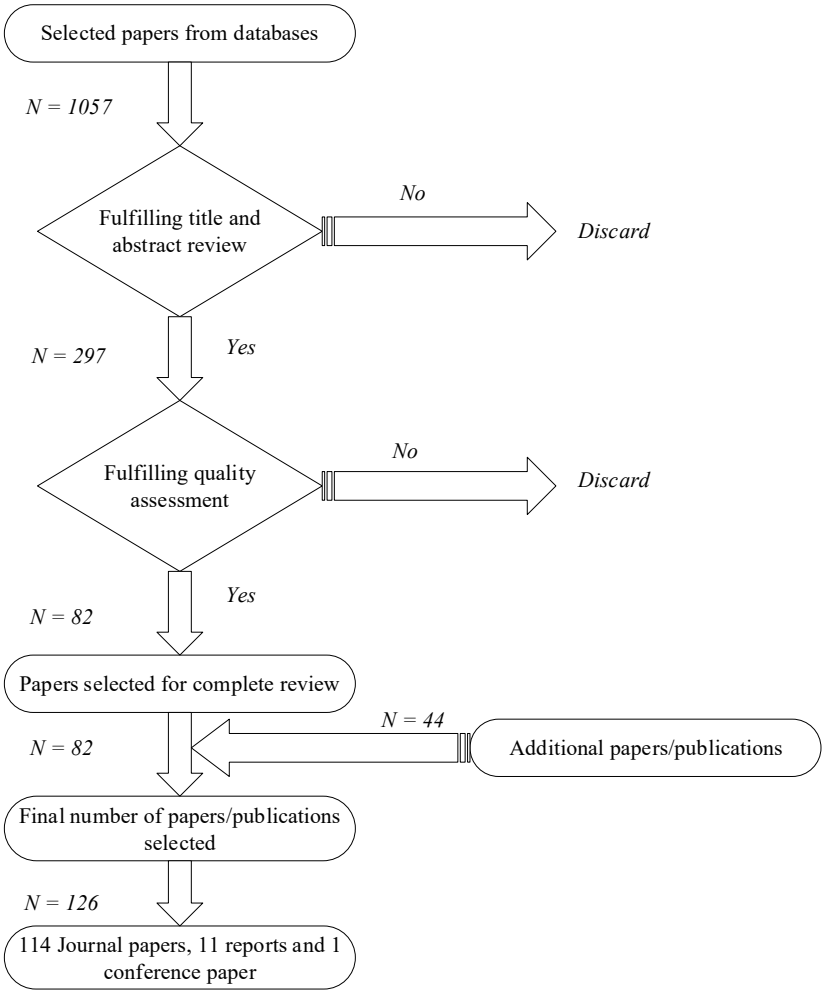

Figure 1 Process for selecting publications

The first step involves the title and abstract review, followed by a second step comprising quality assessment. The title and abstract review is based on three types of relevancies: 1 – papers should be relevant to SCF (actors, instruments, frameworks, models, enablers and inhibitors); 2 – papers should be relevant to supply chain management (coordination, supply chain processes, financial benefits, frameworks, and models); 3 – selected papers should rate from 2-4* (ratings based on Association of Business Schools (ABS) journal guide). As a part of this process, a sub-panel was formed. This panel was comprised of the primary researcher and two supporting researchers for this study[1]. Each researcher screened the same sample of 100 randomly selected abstracts after which criteria for inclusion and exclusion were

[1] The 3 researchers are the authors of this paper, with the primary researcher being the lead author.

discussed between the three authors. This was done to ensure that criteria were understood and applied similarly to remove reviewer bias and improve the reliability of the study. Based on revised criteria the lead researcher drove the abstract screening process whilst seeking guidance from co-researchers on ambiguous abstracts as needed. At this stage, 297 papers were selected for robust quality assessment.

The quality assessment is based on the criteria emphasising contribution, theory, methodology and analysis (Wong et al., 2012). A process was applied by which the three researchers independently reviewed the same sample of 35 randomly selected papers against the inclusion and exclusion criteria, with the lead researcher subsequently screening the rest of the articles as common criteria had been established. Only the publications able to contribute to answering the review and its sub research questions, and aligning with quality criteria were selected to be taken forward. This step reduced the number of full-text papers to 82.

SCF is a nascent field and is still finding its place in the higher ranked ABS journals. 32 journal papers were identified that made a sound academic contribution to SCF, but were initially excluded as they did not meet the inclusion criteria of being published in an ABS 2-4* ranked journal. In hindsight this inclusion criteria may be more appropriate for a more mature field, and its applicability considered more carefully for an emerging field such as SCF. An additional 11 reports and one conference paper from cross-referencing were added because they were revealed as relevant to the research but were not found in the initial literature search. Accordingly, a total of 126 publications were selected for further analysis and synthesis.

2.4 Analysis and synthesis

The selected publications were retrieved using a data extraction form (see Appendix B) and a reference manager (EndNote). After retrieval, each selected publication was analysed both

for its descriptive and thematic content. The descriptive analysis is more deductive in nature and focused on the categorisation of papers by year, country of publication, ABS rating, scope, involved institution, discipline, research methods and industry type. In contrast, the thematic analysis is divided into two parts: thematic results and thematic synthesis. Thematic results identify and categorise the literature into the constructs pertinent to the research questions. During thematic synthesis, the resulting body of evidence from the literature is explored, cross-tabulated and analysed (while explaining the constructs, archetypes and their relationships) to provide rigorous reflections on the literature.

2.5 Reporting and using the results

The purpose of this paper is to report the results: descriptively, thematically and in the form of a theoretical framework related to SCF archetypes.

3. Descriptive results: Characterising the supply chain finance literature

The 126 publications identified through the SLR were analysed to determine the type of publication, publication year, research methodology, main scope of the research, ABS ratings, ABS categories, geographical location of the authors' affiliated institution and industrial sectors. The main objective of this analysis was to understand the trends in this body of literature relevant to RQ1 and RQ2. In terms of publication type, as illustrated in Figure 2, 72% of the publications identified are from academic journals with a defined ABS rating. Other international academic journals accounted for 18%, and reports 9%.

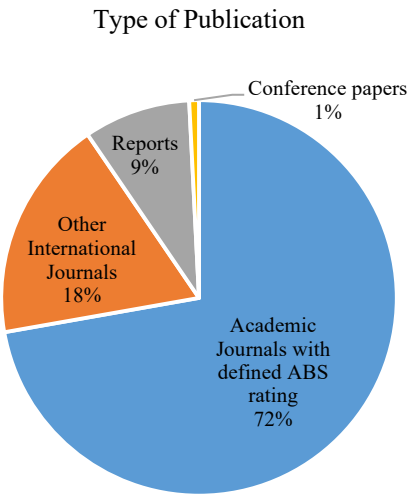

Figure 2 Type of publication

All the identified publications were published between January 1995 and May 2017, as set in the search parameters. Figure 3 presents the publications by year and methodology.

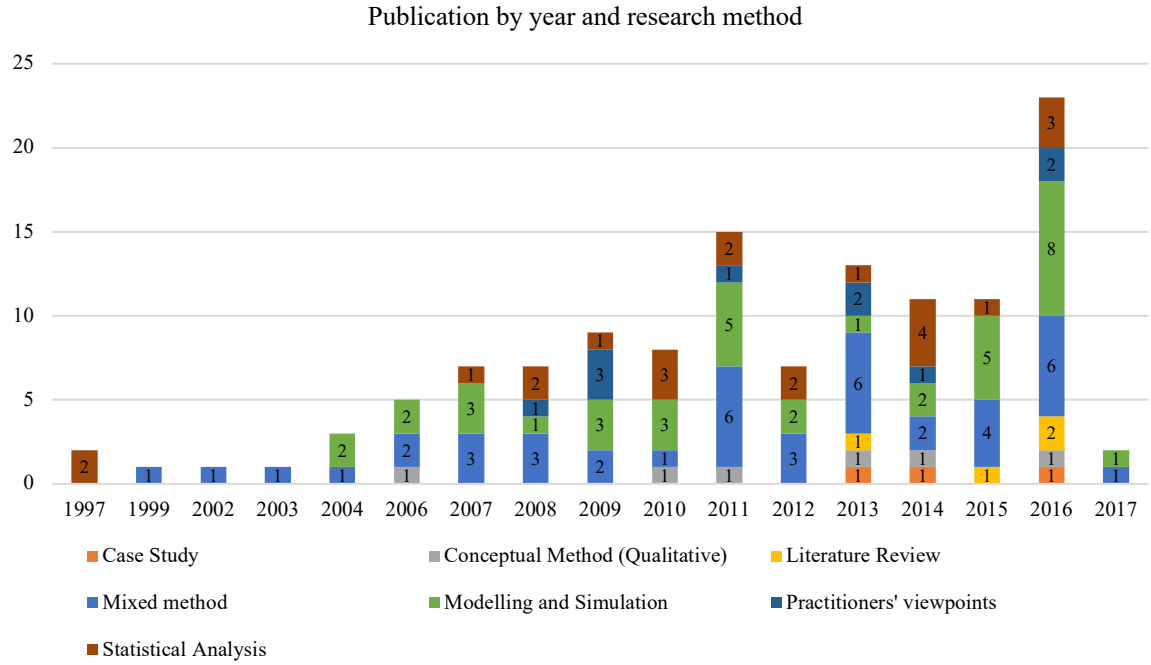

Figure 3 Analysis of publications according to the year of publication and methodology

As shown in Figure 3, there has been an increasing interest in SCF, with 79% of the publications published between 2009 and 2017, with a peak in 2011, which may be an indication of the increased interest in SCF following the Global Economic Crisis (GEC) in

2008. Firms required more financing (internal and external) to absorb the financial stress post GEC (Love and Zaidi, 2010; Tsai, 2011; Casey and O'Toole, 2014; McGuinness and Hogan, 2016).

Mixed methods (34%), modelling and simulation (30%) and statistical analysis (17%) were the most frequently used research methodologies and were consistently used over the period of study. Practitioners' viewpoints represent about 8% of the selected publications, thereby illustrating the practical orientation of the field. In terms of scope, core SCF[2] accounted for 62%, trade credit[3] 16%, and FSCM-related publications 4.8%.

The 114 journal papers were published in 71 journals (including 53 ABS rated journals). As illustrated in Figure 4, SCF papers were most frequently published in the International Journal of Production Economics (8 papers), the European Journal of Operational Research (7 papers) and International Journal of Physical Distribution and Logistics Management (7 papers).

Figure 4 Top 15 journals with number of papers

[2] The scope of SCF includes SCF actors, instruments, supply chain processes and 'enablers and inhibitors' for the adoption of SCF

[3] The scope of trade credit includes trade credit and short-term financing

The interdisciplinary nature of SCF is illustrated in Figure 5, which identifies operations and technology management (30 papers), finance (18 papers) and operations research (16 papers) as the predominant disciplines.

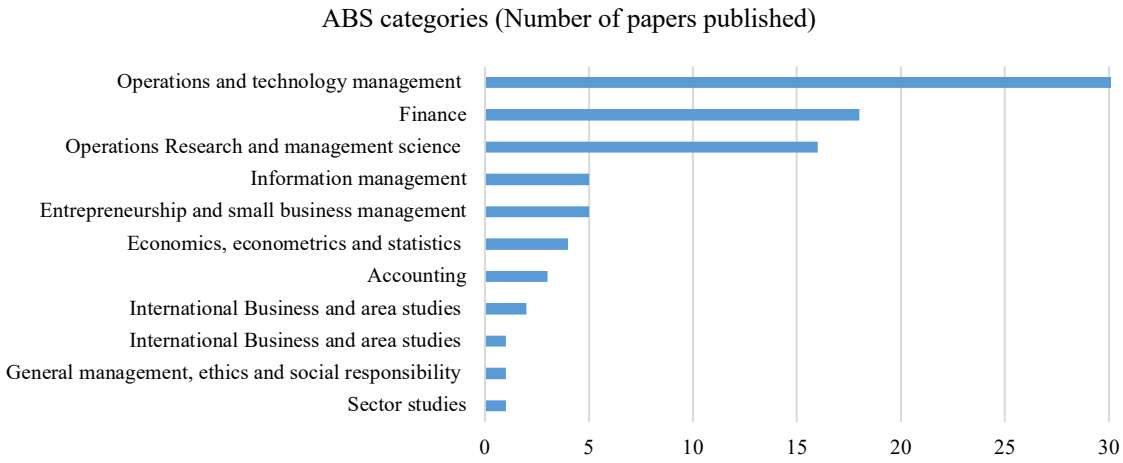

Figure 5 Analysis of papers according to ABS categories

As illustrated in Figure 6, the majority of papers were published in ABS 3 rated journals (42%), with 22% in ABS rating 2.

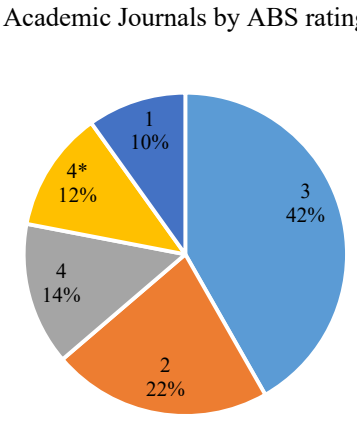

Figure 6 ABS rating of the journals included in ABS guide

In terms of the geographical location of authors' affiliated institutions, the US (23%) and China (17%) were the countries with authors with the highest frequency of publication in SCF. The authors of the remaining 60% of publications were more geographically dispersed: the UK (7%), Canada, Switzerland and The Netherlands (6% each), and Spain and Germany

(4% each). The remaining authors are affiliated to 24 different countries accounting for less than 4% each, with 13 countries being the origin of only one article.

Finally, it is important to determine which industrial sectors have made contributions to the body of knowledge on SCF. In the majority of papers (48%) the industrial sectors are either undefined or generalised. The manufacturing sector represented 24% of papers, Logistics Service Providers (LSPs) 16%, and Financial Service Providers 16%. Consumer goods and pharmaceuticals were more marginal sectors, representing 7% and 5% of the papers, respectively. This distribution is consistent with the concept of SCF, as the combined involvement of manufacturing, finance and logistics sectors is almost three times the others.

A deductive approach was adopted in the descriptive analysis to focus on the classification of the papers. The trends presented in the descriptive analysis depict increased interest in SCF post GEC, due to the lack of internal and external financial resources. The increased interest in the SCF is also indicated by the involvement of multiple disciplines and different industrial sectors in conducting research in the field of SCF. The descriptive analysis also reveals the requirement for more theoretical development in the field of SCF due to the lack of exploratory and descriptive research.

4. Thematic results: understanding the five key constructs

The SLR was organised around five key constructs that underpin the concept of SCF. These are the actors, instruments, processes and triggers, enablers and inhibitors, and financial benefits. An inductive approach was chosen here – each researcher read the same sample of ten articles and synthesised salient constructs of interest related to the review questions. The synthesis was based on the concept underlying the supply chain operating model and its interaction with the physical supply chain (PSC) and assets (Godsell et al., 2010). Consequently, actors and instruments are associated with the organisational design, processes

and triggers with the processes, governance and decision rights with enablers and inhibitors, and financial benefits with financial performance measurement. The triggers were included in the processes as they represent the point of interaction between physical and financial supply chain (FSC) processes (Camerinelli, 2009; Mateen and More, 2013; Basu and Nair, 2012; Scott, 2011). These constructs were presented to the expert panel for discussion. Following this, constructs were applied by the main author to all of the 126 papers, working collaboratively with the two other authors as necessary in cases of ambiguity.

In order to identify and organise the literature pertinent to the constructs, content analysis of the selected papers was performed. The content analysis determined the presence of constructs in the relevant literature. The constructs were used as the coding categories and relevant quotes from the papers were selected. Each selected paper was systematically analysed by the authors and valid inferences to the constructs was made by evaluating and interpreting the text.

Each of the constructs will now be discussed in turn.

4.1 Supply chain finance actors

SCF actors are the members of the supply chain involved in the implementation or adoption of SCF. The key role of the SCF actors involves coordination of the financial instruments in order to deliver the financial services. The SCF actors in the SCF landscape can be broadly classified as primary and supportive actors (Pfohl and Gomm, 2009). The former include the members who are directly connected with each other in the supply chain, e.g. focal company/buyer and supplier, whereas the latter provide the support services to the primary members and include service providers and traditional banks. The service providers are further categorised into traditional banks, LSPs, non-bank financial institutions (NBFIs) and platform providers.

A summary of the different types of primary and supporting actors is illustrated in Table 5.

Table 5 Supply chain finance actors

Actors		Supporting references (from SLR)
Primary Actors	**Buyer**	Bond, 2004; Pfohl and Gomm, 2009; Hofmann and Belin, 2011; Basu and Nair, 2012; de Meijer and de Bruijn, 2013; Bryant and Camerinelli, 2014; Jing and Seidmann, 2014; de Boer et al., 2015; Hofmann and Zumsteg, 2015; Liu et al., 2015; BAFT et al., 2016; Extra et al., 2016; Moritz et al., 2016
	Supplier	Petersen and Rajan, 1997; Ng et al., 1999; Asselbergh, 2002; Bond, 2004; Pfohl and Gomm, 2009; Fabbri and Menichini, 2010; Chen and Cai, 2011; Hofmann and Belin, 2011; Basu and Nair, 2012; de Meijer and de Bruijn, 2013; Yiu et al., 2013; Bryant and Camerinelli, 2014; Jing and Seidmann, 2014; de Boer et al., 2015; Hofmann and Zumsteg, 2015; Liu et al., 2015; BAFT et al., 2016; Chod, 2015; Extra et al., 2016; GBI, 2016; Moritz et al., 2016; Song et al., 2016a
Supportive Actors	**Traditional Banks**	Berger and Udell, 2006; Dyckman, 2009; Hofmann, 2009; Pfohl and Gomm, 2009; Fabbri and Menichini, 2010; Chen and Cai, 2011; Hofmann and Belin, 2011; Basu and Nair, 2012; de Meijer and de Bruijn, 2013; Mateen and More, 2013; Yiu et al., 2013; Bryant and Camerinelli, 2014; Jing and Seidmann, 2014; Hofmann and Zumsteg, 2015; Liu et al., 2015; BAFT et al., 2016; Extra et al., 2016; GBI, 2016; Hofmann and Johnson, 2016; Moritz et al., 2016; Song et al., 2016a; Martin and Hofmann, 2017
	Non-bank Financial Institutions (Factoring firms, Private equity investors)	Bond, 2004; Dyckman, 2009; Hofmann, 2009; Pfohl and Gomm, 2009; Chen and Cai, 2011; Hofmann and Belin, 2011; Basu and Nair, 2012; de Meijer and de Bruijn, 2013; Mateen and More, 2013; Yiu et al., 2013; Bryant and Camerinelli, 2014; de Boer et al., 2015; Hofmann and Zumsteg, 2015; BAFT et al., 2016; Extra et al., 2016; GBI, 2016; Hofmann and Johnson, 2016; Moritz et al., 2016; Martin and Hofmann, 2017
	Logistics Service Providers	Hofmann, 2009; Pfohl and Gomm, 2009; Hofmann and Kotzab, 2010; Chen and Cai, 2011; Basu and Nair, 2012; Mateen and More, 2013; Popa, 2013; Yiu et al., 2013; Bryant and Camerinelli, 2014; de Boer et al., 2015; Hofmann and Zumsteg, 2015; Liu et al., 2015; BAFT et al., 2016; Extra et al., 2016; GBI, 2016; Song et al., 2016b
	Platform Providers (IT/ e-invoicing/SCF/ FinTechs)	Hofmann and Belin, 2011; Basu and Nair, 2012; de Meijer and de Bruijn, 2013; Popa, 2013; Yiu et al., 2013; Bryant and Camerinelli, 2014; Hofmann and Zumsteg, 2015; BAFT et al., 2016; Extra et al., 2016; GBI, 2016; Martin and Hofmann, 2017

The buyers and suppliers are active players in SCF (Extra et al., 2016), trading and collaborating with each other along the supply chain. As required, buyers and suppliers work with finance providers to raise finance using various SCF instruments and other forms of finance. The large corporate buyer or supplier brings credit arbitrage into play, providing suppliers and/or buyers of its products access to the capital at reduced rates. The financial distortion is mitigated when the financing is provided by the primary actors as they can observe the actual order quantities before determining the credit terms (Chod, 2015).

Additionally, borrowing goods rather than borrowing cash limits the borrower's ability to misuse the received financial assistance.

Traditional banks lead the list of SCF actors delivering financial services. They might directly provide access to capital to the firms or provide a financial platform for fulfilling the requirements related to the successful implementation of SCF instruments. During 2008, 93% of the top 50 global banks were offering SCF-related services (Demica, 2008). As of 2015, the percentage of global banks offering SCF services stands at 85% (Jeffery et al., 2017).

Traditionally, LSPs provide logistics services to their customers. As logistics management induces financial flows and fulfils an important criteria of supply chain visibility (Pfohl and Gomm, 2009), LSPs are potentially in a good position to provide financing. By exploiting their control over the material flows, LSPs can offer SCF in collaboration with the financial institutions or on their own (in case the LSP is cash rich). LSPs might coordinate the implementation of SCF solutions as well as offer value added services to the banks in the form of collateral services and information sharing services (information about the inventory). LSPs might also take ownership of inventory and manage the flow in order to maximise the working capital for both buyers and suppliers.

NBFIs are the financial intermediaries beyond the traditional banks playing a critical role in the implementation of SCF practices (Martin and Hofmann, 2017). Their integration into SCF is based on the service requirements. Pfohl and Gomm (2009) have argued that the NBFIs can play a narrow or broad role. Their narrower role includes financial intermediaries specialised in the balance of asset and financial requirements of investors. In a broader role, they offer services in order to allow the completion of financial contracts. The platform providers include technology providers and trade platform providers (Business-to-Business/Business-to-Customers); their role in SCF is profound and they typically provide financing by liaising with NBFIs or traditional banks.

4.2 Supply chain finance instruments

SCF actors coordinate the SCF instruments in order to provide the financial services. SCF instruments deliver these financial services in a supply chain by facilitating the process of reconciliation, exchanging purchasing orders, invoices, credit notes, payments and related information (Hofmann and Belin, 2011). SCF instruments' portfolio takes into account various SCF instruments that can be used along the supply chain. Table 6 illustrates the list of SCF instruments presented in the literature.

Table 6 Supply chain finance instruments

Instruments	Supporting references (from SLR)
Reverse factoring	Hofmann, 2005; Klapper, 2006; Demica, 2008; Camerinelli, 2009; Dyckman, 2009; Hofmann and Belin, 2011; Seifert and Seifert, 2011; Basu and Nair, 2012; Popa, 2013; Wuttke et al., 2013a; Bryant and Camerinelli, 2014; de Boer et al., 2015; Dello Iacono et al., 2015; van der Vliet et al., 2015; BAFT et al., 2016; Caniato et al., 2016; Extra et al.,2016; GBI, 2016; Kortman et al., 2016; Lekkakos and Serrano, 2016; Liebl et al., 2016; Wandfluh et al., 2016
Factoring	Asselbergh, 2002; Berger and Udell, 2006; Klapper, 2006; Camerinelli, 2009; Lamoureux and Evans, 2011; Popa, 2013; Bryant and Camerinelli, 2014; BAFT et al., 2016; Moritz et al., 2016
Captive factoring	Caniato et al., 2016
Inventory financing	Buzacott and Zhang, 2004; Hofmann, 2005, 2009; Chen and Cai, 2011; Lamoureux and Evans, 2011; Lee and Rhee, 2011; Li et al., 2011; Basu and Nair, 2012; Jing et al., 2012; Yan and Sun, 2013; Chod, 2015; de Boer et al., 2015; Liu et al., 2015; BAFT et al., 2016; GBI, 2016; Song et al., 2016b; Martin and Hofmann, 2017
Warehouse financing	Hofmann, 2005; Li et al., 2011; Popa, 2013; Yan and Sun, 2013; Bryant and Camerinelli, 2014; de Boer et al., 2015; BAFT et al., 2016
Fixed asset-based financing	Buzacott and Zhang, 2004; Berger and Udell, 2006; Demica, 2008; Jing et al., 2012; GBI, 2016
Leasing	Hofmann, 2005; Berger and Udell, 2006; Beck et al., 2008; O'Toole et al., 2015; Moritz et al., 2016
Purchase order financing	Camerinelli, 2009; Lamoureux and Evans, 2011; Li et al., 2011; Basu and Nair, 2012; de Meijer and de Bruijn, 2013; More and Basu, 2013; Bryant and Camerinelli, 2014; de Boer et al., 2015; BAFT et al., 2016; Yan et al., 2016
Raw material financing	Lamoureux and Evans, 2011; Basu and Nair, 2012; More and Basu, 2013; Liu et al., 2015
Vendor Managed Inventory	Pfohl and Gomm, 2009; de Boer et al., 2015; Caniato et al., 2016; Gelsomino et al., 2016; Templar et al., 2016
Consignment stock	de Boer et al., 2015; Caniato et al., 2016; Templar et al., 2016
Dynamic discounting	Hofmann, 2005; Basu and Nair, 2012; Bryant and Camerinelli, 2014; de Boer et al., 2015; Caniato et al., 2016
Invoice discounting	Hofmann, 2005; Bryant and Camerinelli, 2014
Seller-based invoice auction	Caniato et al., 2016; GBI, 2016
Factoring	Asselbergh, 2002; Buzacott and Zhang, 2004; Berger and Udell, 2006; Klapper, 2006; Camerinelli, 2009; Lamoureux and Evans, 2011; de Meijer and de Bruijn, 2013; Popa, 2013; Bryant and Camerinelli, 2014; de Boer et al., 2015; BAFT et al., 2016; GBI, 2016; Moritz et al., 2016
Unified credit financing	Song et al., 2016a
Equity financing/Mezzanine financing	Casey and O'Toole, 2014; Chod, 2015; de Boer et al., 2015; Moritz et al., 2016; Yang et al., 2017
Financial statement lending	Berger and Udell, 2006
Distribution financing	Yan et al., 2016

The instruments presented in Table 6 use different mechanisms along with the involvement of different actors. For example, reverse factoring enables suppliers to borrow against the value of the relevant accounts receivable at a cheap rate by involving SCF actors such as buyer, supplier, traditional bank and/or NBFI. On the other hand, inventory financing enables companies to acquire short-term loans against inventory, involving SCF actors such as buyer/supplier, traditional bank, LSP and/or NBFI. Based on these different mechanisms,

types of collateral and participation of SCF actors, SCF instruments can be allocated to various categories.

One of the most widely used categorisations is to divide SCF instruments into pre-shipment, in-transit and post-shipment (Hofmann, 2005; More and Basu, 2013; Wuttke et al., 2013b). The pre-shipment instruments include the SCF instruments, such as purchase order financing and raw material financing that are available before the invoice release. The in-transit instruments are aimed at financing inventories and include instruments such as inventory financing and warehouse financing, and post-shipment instruments refer to financing instruments such as reverse factoring available only after the invoice is approved. Whilst this is a popular categorisation used by authors, it simply limits the scope of SCF in incorporating a range of available financial instruments such as fixed-asset financing, as it focuses only on the operational part of the supply chain, which is based on the optimisation of working capital. De Boer et al. (2015) suggested that SCF instruments can alternatively be categorised into operational, tactical, and strategic instruments. The operational instruments, such as reverse factoring and dynamic discounting, finance the networking capital, tactical instruments are used to finance fixed assets, and strategic instruments are related to the equity financing.

4.3 Supply chain processes and triggers

SCF is complex and largely 'event-driven'. In order to understand the 'event-driven' nature and underlying mechanisms of SCF, it is crucial to explore supply chain processes and associated triggers. The triggers interconnect the PSC and FSC. The points of interconnection between PSC and FSC create the interventions (events) along the PSC, which lead to the deployment of a particular SCF instrument in the FSC (Camerinelli, 2009; Mateen and More, 2013; Basu and Nair, 2012; Scott, 2011). Hence, PSC and FSC perspectives are critical in

understanding the supply chain processes as each intervention (finance or payment) in the FSC is triggered by an event in the PSC.

The three major supply chain processes involved in integrating the FSC and PSC are Source-to-Pay (S2P), Order-to-Cash (O2C) and Fulfil-to-Service (F2S) (Camerinelli, 2009; Hofmann and Belin, 2011; Popa, 2013; Bryant and Camerinelli, 2014; EBA, 2014; BAFT et al., 2016; Martin and Hofmann, 2017). The S2P process is buyer-centric while the O2C and F2S processes are supplier-centric (Popa, 2013; EBA, 2014). These processes are associated with the fixed set of triggers that lead to the deployment of a particular SCF instrument. The set of triggers include purchase order, inventory, raw materials, issued invoice, approved invoice and fixed asset (movable and immovable) (Lamoureux and Evans, 2011; Scott, 2011; Mateen and More, 2013; More and Basu, 2013; Bryant and Camerinelli, 2014; EBA, 2014; BAFT et al., 2016; GBI, 2016). The S2P process is linked with the approved invoice, F2S process with the inventory, raw material and fixed assets, and the O2C process with the purchase order and issued invoice (Bryant and Camerinelli, 2014; EBA, 2014).

4.4 SCF adoption (enablers and inhibitors)

The successful adoption of SCF is driven by the set of enablers, whereas inhibitors delimit it. The main enablers for the SCF adoption are presented in Table 7.

Table 7 Enablers for the adoption of SCF

Enablers	Supporting references (from SLR)
Credit rationing	Paul and Boden, 2008; Seifert et al., 2013; Bryant and Camerinelli, 2014; O'Toole et al., 2015
Financial risk Management	Asselbergh, 2002; Rodríguez-Rodríguez, 2008; Hofmann and Kotzab, 2010; Li et al., 2011; Jing et al., 2012; de Meijer and de Bruijn, 2013; Soufani et al., 2013; Wuttke et al., 2013b; Bryant and Camerinelli, 2014; de Boer et al., 2015; Liu et al., 2015; BAFT et al., 2016; Caniato et al., 2016; Extra et al., 2016; Gelsomino et al., 2016; Moritz et al., 2016; Liebl et al., 2016; Song et al., 2016a; Wandfluh et al., 2016
Transaction costs	Asselbergh, 2002; Seifert et al., 2013; Ng et al., 1999; Cheng and Pike, 2003; Paul and Boden, 2008; Rodríguez-Rodríguez, 2008; Dyckman, 2009; García-Teruel and Martínez-Solano, 2010; Hill et al., 2013; Wuttke et al., 2013; Kortman et al., 2016; Moritz et al., 2016; Wandfluh et al., 2016
Payment flexibility	Seifert and Seifert, 2011; Soufani et al., 2013; Extra et al., 2016
Liquidation advantage/policy	Buzacott and Zhang, 2004; García-Teruel and Martínez-Solano, 2010
Monitoring advantage	Hofmann, 2009; Chen and Cai, 2011; Li et al., 2011; Liu et al., 2015
Exposure (global and local)	Lamoureux and Evans, 2011; Extra et al., 2016; Wuttke et al., 2016
Operating flexibility	García-Teruel and Martínez-Solano, 2010; Lekkakos and Serrano, 2016
Seasonality of sales	Ng et al., 1999; Asselbergh, 2002
Supplier's sales growth	Asselbergh, 2002; Extra et al., 2016
Investment intensity of supplier	Asselbergh, 2002
SC receivables volume	Asselbergh, 2002; Dello Iacono et al., 2015
Innovativeness of firms	Asselbergh, 2002; Moritz et al., 2016; Song et al., 2016a
Intra- and inter-firm collaborations	Buzacott and Zhang, 2004; Field and Meile, 2008; Paul and Boden, 2008; Seifert and Seifert, 2011; de Meijer and de Bruijn, 2013; Mateen and More, 2013; More and Basu, 2013; Wuttke et al., 2013; Yan and Sun, 2013; Bryant and Camerinelli, 2014; de Boer et al., 2015; Caniato et al., 2016; Extra et al., 2016; Kortman et al., 2016; Lorentz et al., 2016; Song et al., 2016a; Wandfluh et al., 2016
Globalisation	Hofmann and Belin, 2011; de Meijer and de Bruijn, 2013; Extra et al., 2016; GBI, 2016; Lorentz et al., 2016
Market Power	Cheng and Pike, 2003; Berger and Udell, 2006; Paul and Boden, 2008; Soufani et al., 2013; Wuttke et al., 2013; Bryant and Camerinelli, 2014; Liebl et al., 2016; Lorentz et al., 2016
Bargaining Power	Paul and Boden, 2008; Wuttke et al., 2013; Mateut, 2014; Caniato et al., 2016; Liebl et al., 2016
Trade process digitalisation	Dyckman, 2009; Hofmann and Belin, 2011; Lamoureux and Evans, 2011; de Meijer and de Bruijn, 2013; Mateen and More, 2013; More and Basu, 2013; Popa, 2013; Wuttke et al., 2013; Bryant and Camerinelli, 2014; Caniato et al., 2016; Extra et al., 2016; GBI, 2016; Kortman et al., 2016
Information acquisition	Dyckman, 2009; García-Teruel and Martínez-Solano, 2010; Seifert and Seifert, 2011; Wuttke et al., 2013; Song et al., 2016a
Information-sharing	Berger and Udell, 2006; Field and Meile, 2008; Dyckman, 2009; de Meijer and de Bruijn, 2013; More and Basu, 2013; Wuttke et al., 2013; van der Vliet et al., 2015; Extra et al., 2016; Song et al., 2016a; Wandfluh et al., 2016
Social capital and trust	Berger and Udell, 2006; Leng and Zailani, 2012; Mateen and More, 2013; More and Basu, 2013; Wuttke et al., 2013b; Liu et al., 2015; Caniato et al., 2016; Liebl et al., 2016; Moritz et al., 2016
Tax rate advantage	Asselbergh, 2002; Buzacott and Zhang, 2004; Berger and Udell, 2006; Hill et al., 2013; Soufani et al., 2013; Liebl et al., 2016
Bank regulatory environment	Yan and Sun, 2013; Casey and O'Toole, 2014

Among the enablers shown in Table 7, managing financial risk that involves a reduction in the concentration of financial risk by distributing risk along the supply chain is the most frequently cited enabler leading to the adoption of SCF (Soufani et al., 2013; Moritz et al., 2016; Liebl et al., 2016; Song et al., 2016b; Wandfluh et al., 2016). The financial risk management is followed by intra- and inter-firm collaborations, and is associated with the collaborations within and outside the company for new service/product development and sustainability (Lorentz et al., 2016; Song et al., 2016b; Wandfluh et al., 2016). Furthermore, a higher level of digitalisation removes the manual processes and eases the information sharing that is essential for SCF (Caniato et al., 2016). The reduction in transaction costs associated with information exchange, monitoring costs, finance search, fee for renegotiating credit contracts, and payments is also a particularly crucial enabler for the adoption of SCF (Dyckman, 2011; Hill et al., 2013; Kortman et al., 2016; Moritz et al., 2016).

Although some of the enablers are not frequently cited in the literature, they do have a positive impact on SCF adoption. This impact involves a decrease in the overall costs, an increase in the purchases and effective lowering of the price, facilitation of trade by providing a contractual alternative to immediate money use, providing alternative sources of financing for firms 'credit rationed' by the banks, and additional concessions for lenders during financial distress.

The main inhibitors for SCF adoption are presented in Table 8.

Table 8 Inhibitors for the adoption of supply chain finance

Inhibitors	Supporting references (from SLR)
SCF Terminology	de Meijer and de Bruijn, 2013; Bryant and Camerinelli, 2014; de Boer et al., 2015; Extra et al., 2016; Song et al., 2016b; Martin and Hofmann, 2017
Expertise	Mateen and More, 2013; More and Basu, 2013; BAFT et al., 2016; Extra et al., 2016; Liebl et al., 2016; Martin and Hofmann, 2017
Introduction timing	Wuttke et al., 2016
Agency risks/ costs	Hill et al., 2013; Moritz et al., 2016; Yan et al., 2016
Information asymmetry	Cheng and Pike, 2003; Buzacott and Zhang, 2004; Rodríguez-Rodríguez, 2008; García-Teruel and Martínez-Solano, 2010; Atanasova, 2012; Hill et al., 2013; van der Vliet et al., 2015; Moritz et al., 2016; Yan et al., 2016
Accounting/invoicing standards	Berger and Udell, 2006; Hofmann and Kotzab, 2010; de Meijer and de Bruijn, 2013; Bryant and Camerinelli, 2014; BAFT et al., 2016; Extra et al., 2016; GBI, 2016; Song et al., 2016b
Organisational policies	de Meijer and de Bruijn, 2013; More and Basu, 2013
Cultural difference	Camerinelli, 2009; de Meijer and de Bruijn, 2013; Mateen and More, 2013; More and Basu, 2013; Moritz et al., 2016; Wandfluh et al., 2016
Cross-border transactions (multiple currencies, different languages and multiple legal jurisdictions)	Mateen and More, 2013; More and Basu, 2013
Legal and Judicial (commercial, formal contracts)	Berger and Udell, 2006; Klapper, 2006; Beck et al., 2008; Lamoureux and Evans, 2011; de Meijer and de Bruijn, 2013; Extra et al., 2016; Moritz et al., 2016
Government laws and regulations	Klapper, 2006; de Meijer and de Bruijn, 2013; More and Basu, 2013; Yiu et al., 2013; de Boer et al., 2015; BAFT et al., 2016; Extra et al., 2016; Liebl et al., 2016; Moritz et al., 2016

The lack of expertise and standard terminology in SCF are the core challenges faced by SCF as the lack of knowledge about SCF and its mechanisms hinders the adoption of SCF. The information asymmetry resulting in inefficiencies in financial transactions and poor visibility of movement of goods taking place in supply chains is also challenging. Furthermore, intra- and inter-silos lead to agency risks and affect the global dimension demanded by SCF and lead to ineffective supply chain planning – effective planning being an essential requirement for successful SCF (Hofmann, 2009; More and Basu, 2013). Another major inhibitor includes the policies, government laws and regulations that mainly hinder the cross-border transactions due to multiple currencies, different languages and multiple legal jurisdictions and makes processes such as knowing your customers and anti-money laundering more complicated.

From the buyer's perspective, the need to change the internal process, the difficulty in bringing suppliers on board, lack of common standards and terminology, organisational culture, introduction timing, payments terms (interest rate) and conflicts of interest (creditworthiness and risk-adjusted interest rates) are the major inhibitors for adopting SCF (Demica, 2007 ; de Meijer and de Bruijn, 2013; Hofmann, 2009; Wuttke et al., 2016).

4.5 Financial benefits

The effect of SCF on the performance of the firms can be measured by evaluating the financial benefits attained by the involved firms and supply chain (before and after implementing a particular type of SCF instrument). Table 9 highlights the list of financial benefits that can be attained by adopting SCF.

Table 9 Financial benefits of supply chain finance

Financial benefits	Supporting references (from SLR)
Cash conversion cycle/ Cash-to-cash cycle	Reiner and Hofmann, 2006; Demica, 2007; Tsai, 2008; Camerinelli, 2009; Hofmann and Kotzab, 2010; Tsai, 2011; Hofmann and Belin, 2011, Lamoureux and Evans, 2011; More and Basu, 2013; Popa, 2013; Bryant and Camerinelli, 2014; Talonpoika et al., 2014; de Boer et al., 2015; Dello Iacono et al., 2015; Hofmann and Zumsteg, 2015; Huff and Rogers, 2015; Caniato et al., 2016; Extra et al., 2016; GBI, 2016; Gelsomino et al., 2016; Lorentz et al., 2016
Collaborative Cash-to-Cash Cycle	Hofmann and Kotzab, 2010; de Boer et al., 2015; Wandfluh et al., 2016
Net working capital	Demica, 2007; Sadlovska, 2007; Dyckman, 2009; Hofmann and Belin, 2011; Seifert and Seifert, 2011; Protopappa-Sieke and Seifert, 2011; Basu and Nair, 2012; de Meijer and de Bruijn, 2013; Wuttke et al., 2013; Bryant and Camerinelli, 2014; Dello Iacono et al., 2015; BAFT et al., 2016; Caniato et al., 2016; Extra et al., 2016; Gelsomino et al., 2016; Kortman et al., 2016; Lekkakos and Serrano, 2016; Liebl et al., 2016; Wandfluh et al., 2016; Wuttke et al., 2016; Martin and Hofmann, 2017
Transaction cost savings	Rodríguez-Rodríguez, 2008; Dyckman, 2009; Hofmann and Belin, 2011; Wuttke et al., 2013; Bryant and Camerinelli, 2014; Kortman et al., 2016; Moritz et al., 2016; Wandfluh et al., 2016
Economic Value Added	Camerinelli, 2009; Elgazzar et al., 2012; Hofmann and Zumsteg, 2015
Return on Investment (interest on loan)	Hofmann, 2009; Chen and Cai, 2011; BAFT et al., 2016
Lease rent	Buzacott and Zhang, 2004; Berger and Udell, 2006; Beck et al., 2008; O'Toole et al., 2015; Templar et al., 2016
Service fee	Bryant and Camerinelli, 2014
Days Inventory Held	Hofmann, 2009; Huff and Rogers, 2015
Inventory Carrying Costs	Pfohl and Gomm, 2009; BAFT et al., 2016; Caniato et al., 2016; Gelsomino et al., 2016; Templar et al., 2016
Days Payable Outstanding	Sadlovska, 2007; Dyckman, 2009; Hofmann and Belin, 2011; Huff and Rogers, 2015; Dello Iacono et al., 2015; van der Vliet et al. 2015; BAFT et al., 2016; Extra et al., 2016
Savings on invoices	Dello Iacono et al., 2015; Extra et al., 2016
Days Sales Outstanding	Sadlovska, 2007; Dyckman, 2009; Hofmann and Belin, 2011; Bryant and Camerinelli, 2014; Huff and Rogers, 2015; Dello Iacono et al., 2015; van der Vliet et al. 2015; BAFT et al., 2016

The two common indicators mainly used to measure the benefits from SCF are the Net Working Capital (NWC) and Cash Conversion Cycle (CCC)/Cash-to-Cash Cycle (C2C). CCC/C2C is based on accounts receivable (days sales outstanding), accounts payable (days payable outstanding) and inventory holding costs (days inventory held); it can also be extended to measure the overall supply chain efficiency (Farris and Hutchison, 2002; Gupta and Dutta, 2011; Hofmann and Kotzab, 2010). The usage of SCF instruments positively affects the CCC/C2C of the firms, thereby highlighting the financial benefits for the firms. A shorter CCC/C2C also indicates better utilisation of cash resources, hence improved financial performance.

It should be noted that CCC/C2C focuses on the single firm. To extend this measure to the entire supply chain, a new measure is developed from CCC. This measure is termed the Collaborative Cash Conversion Cycle (CCCC) (de Boer et al., 2015). CCCC is used to measure the financial benefit attained by the entire supply chain. By taking a network perspective (CCCC), it is possible to determine an optimal combination of CCCs for all the members in a supply chain by leveraging the differences in capital cost between members in the chain. In addition to the major financial benefits highlighted above, Economic Value Added provides a linkage between the financial performance and the creation of shareholder value. Based on the type of SCF instrument adopted, further financial benefits include return on investment, lease rent, service fee, savings on invoice and inventory carrying costs.

5. Thematic synthesis: supply chain finance archetypes

The five constructs developed (4.1, 4.2, 4.3, 4.4 and 4.5) are essential in exploring relationships between mechanisms, actors and instruments in SCF. Taking these results as the starting point, this section establishes the set of relationships, which will lead to the SCF archetypes.

The SCF categorisations in the literature focus only on the type of SCF instruments (Hofmann, 2005; Hofmann and Belin, 2011; More and Basu, 2013; Wuttke et al., 2013b; de Boer et al., 2015; Caniato et al., 2016). The context of SCF archetypes developed in this paper extends SCF categorisation beyond the scope of instruments by linking them to the constructs identified in this review. The SCF archetypes will define the relationships between instruments and constructs, and explore underlying mechanisms behind the interactions. The developed SCF archetypes align with the categorisation of SCF instruments proposed by Bryant and Camerinelli (2014).

The process of defining the SCF archetypes includes two levels of abstraction. The first level involved analyses of constructs (from the SLR) to define an appropriate approach to reveal the connections and mechanisms. The second level used a metal-level clustering technique to reduce the complexity of analysis – a mind mapping technique was utilised here, which included the review advisory panel. Based on the clustering, the SCF instruments were categorised on the basis of distinct triggers involved in the SCF processes. This resulted in four main clusters – fixed-asset financing cluster, inventory financing cluster, accounts receivable cluster and accounts payable cluster. The review advisory panel and authors further analysed these clusters. Following the analysis, it was decided to reduce the number of clusters from four to three by grouping the accounts receivable cluster and accounts payable cluster into one, with two sub-categories as the trigger for both clusters being associated with the invoices (approved and issued).

Based on the final three clusters, the SCF archetypes are categorised into: Fixed-asset financing (fixed asset-centric), inventory financing (inventory-centric), accounts receivable/accounts payable financing (buyer-centric and supplier-centric). The fixed-asset financing (fixed asset-centric) takes into account the instruments based on the fixed-assets (movable and immovable). Inventory financing (inventory-centric) includes the instruments

that are based on the purchase orders, raw materials, and inventory. Under accounts receivable/accounts payable financing (buyer-centric and supplier-centric), instruments based on the accounts payable (buyer-centric, approved invoice) and accounts receivable (supplier-centric, issued invoice) are taken into account.

5.1 Relationship between supply chain finance archetypes and actors

As presented in section 4.1, SCF actors broadly classified as primary (buyer and supplier) and supportive actors (traditional Banks, NBFIs, LSPs, and platform Providers) are involved in the complex coordination of SCF instruments (Pfohl and Gomm, 2009). A specific SCF instrument involves a specific set of actors (see section 4.2). As each SCF instrument is linked to a particular SCF archetype cluster (see section 5), this makes a particular set of SCF actors interlinked to the archetypes as well. Table 10 illustrates the relationship between archetypes and actors.

Table 10 Supply chain finance archetypes and actors

Archetypes		Actors	Supporting References (from SLR)
Accounts Receivable /Accounts Payable financing	Supplier-centric (Receivables)	Buyer, Supplier, Traditional Banks, Non-bank Financial Institutions (Factoring firms, Private equity investors)	Asselbergh, 2002; Buzacott and Zhang, 2004; Berger and Udell, 2006; Klapper, 2006; Hofmann, 2009; Lamoureux and Evans, 2011; de Meijer and de Bruijn, 2013; Popa, 2013; Bryant and Camerinelli, 2014; de Boer et al., 2015; Dello Iacono et al., 2015; O'Toole et al., 2015; BAFT et al., 2016; Caniato et al., 2016; GBI, 2016; Templar et al., 2016
	Buyer-centric (Approved payables)	Buyer, Supplier, Traditional Banks, Non-bank Financial Institutions (Factoring firms, Private equity investors), Platform Providers (IT/ e-invoicing/ SCF/ FinTechs)	Klapper, 2006; Demica, 2008; Camerinelli, 2009; Dyckman, 2009; Hofmann and Belin, 2011; Seifert and Seifert, 2011; de Meijer and de Bruijn, 2013; More and Basu, 2013; Popa, 2013; Wuttke et al., 2013; Bryant and Camerinelli, 2014; de Boer et al., 2015; Dello Iacono et al., 2015; Caniato et al., 2016; Extra et al., 2016; GBI, 2016; Kortman et al., 2016; Lekkakos and Serrano, 2016; Liebl et al., 2016; Templar et al., 2016
Fixed Asset Financing	Fixed Asset-centric	Buyer, Supplier, Non-bank Financial Institutions (Factoring firms, Private equity investors), Logistics service provider	Buzacott and Zhang, 2004; Berger and Udell, 2006; Beck et al., 2008; Demica, 2008; Hofmann, 2009; Hofmann and Kotzab, 2010; Chen and Cai, 2011; Lee and Rhee, 2011; Li et al., 2011; Jing et al., 2012; Popa, 2013; Yan and Sun, 2013; Zhang et al., 2014; de Boer et al., 2015; Liu et al., 2015; O'Toole et al., 2015; Caniato et al., 2016; GBI, 2016; Song et al., 2016b
Inventory Financing	Inventory-centric	Buyer, Supplier, Traditional Banks, Non-bank Financial Institutions (Factoring firms, Private equity investors), Logistics service providers, Platform Providers (IT/ e-invoicing/ SCF/ FinTechs)	Buzacott and Zhang, 2004; Berger and Udell, 2006; Demica, 2008; Camerinelli, 2009; Hofmann, 2009; Pfohl and Gomm, 2009; Hofmann and Kotzab, 2010; Chen and Cai, 2011; Hofmann and Belin, 2011; Lamoureux and Evans, 2011; Lee and Rhee, 2011; Li et al., 2011; Jing et al., 2012; de Meijer and de Bruijn, 2013; Popa, 2013; Wuttke et al., 2013; Yan and Sun, 2013; Bryant and Camerinelli, 2014; Zhang et al., 2014; de Boer et al., 2015; Liu et al., 2015; BAFT et al., 2016; Caniato et al., 2016; GBI, 2016; Gelsomino et al., 2016; Song et al., 2016b; Templar et al., 2016; Yan et al., 2016; Martin and Hofmann, 2017

5.2 Relationship between supply chain finance archetypes, instruments and triggers

As highlighted in section 4.3, triggers interconnect the financial and physical supply chain based on the integration of S2P, O2C and F2S processes. Depending upon the type of trigger (issued invoice, approved invoice, inventory, raw materials, purchase order, fixed-asset (movable and immovable)), a particular set of SCF instruments is used to offer the financial services (Bryant and Camerinelli, 2014; BAFT et al., 2016). Table 11 illustrates the relationship between archetypes, triggers, and instruments.

Table 11 Supply chain finance archetypes, instruments and triggers

Archetypes		Triggers	Instruments	Supporting References (from SLR)
Accounts Receivable /Accounts Payable financing	Supplier-centric (Receivables)	Issued Invoice	Invoice discounting, Factoring, Captive factoring, Seller-based invoice auction	Asselbergh, 2002; Hofmann, 2005; Berger and Udell, 2006; Klapper, 2006; Camerinelli, 2009; Lamoureux and Evans, 2011; Popa, 2013; Bryant and Camerinelli, 2014; BAFT et al., 2016; Caniato et al., 2016; Moritz et al., 2016
	Buyer-centric (Approved payables)	Approved Invoice	Reverse Factoring (with platform and without platform), Dynamic discounting (with platform and without platform)	Hofmann, 2005; Klapper, 2006; Camerinelli, 2009; Seifert and Seifert, 2011; Basu and Nair, 2012; Popa, 2013; Bryant and Camerinelli, 2014; de Boer et al., 2015; Dello Iacono et al., 2015; van der Vliet et al., 2015; BAFT et al., 2016; Caniato et al., 2016; GBI, 2016; Kortman et al., 2016; Lekkakos and Serrano, 2016; Liebl et al., 2016; Wandfluh et al., 2016
Fixed Asset Financing	Fixed Asset-centric	Fixed Asset (Movable and immovable)	Fixed Asset financing, Leasing	Hofmann, 2005; Berger and Udell, 2006; Beck et al., 2008; O'Toole et al., 2015; Moritz et al., 2016
Inventory Financing	Inventory-centric	Inventory/ Raw materials/ Purchase order	Inventory/wareho using finance, Purchase order financing, Vendor managed inventory, Consignment stock	Buzacott and Zhang, 2004; Hofmann, 2005; Camerinelli, 2009; Hofmann, 2009; Pfohl and Gomm, 2009; Chen and Cai, 2011; Lamoureux and Evans, 2011; Lee and Rhee, 2011; Li et al., 2011; Basu and Nair, 2012; Jing et al., 2012; More and Basu, 2013; Popa, 2013; Yan and Sun, 2013; Bryant and Camerinelli, 2014; Chod, 2015; de Boer et al., 2015; Liu et al., 2015; BAFT et al., 2016; Caniato et al., 2016; GBI, 2016; Gelsomino et al., 2016; Song et al., 2016b; Templar et al., 2016; Yan et al., 2016; Martin and Hofmann, 2017

Considering accounts receivable/accounts payable financing, the issued invoice trigger is linked to the supplier-centric instruments, including invoice discounting, factoring, captive factoring, and seller-based invoice auction. These instruments are initiated by the suppliers as soon as the invoice is released, e.g. in invoice discounting, the supplier offers receivables evidenced by a released invoice for discounting by a traditional bank or NBFIs. In the case that the trigger is an approved invoice, then the buyer-centric SCF instruments, such as reverse factoring and dynamic discounting, are applicable. Similarly, asset-based financing and inventory financing focuses on the fixed-asset and inventory/raw materials/purchase order centric instruments.

5.3 Relationship between supply chain finance archetypes and adoption

As emphasised previously in section 4.4, the adoption of a supply chain is affected by various intervening factors. The literature on SCF adoption factors is still in its infancy. Most of the studies currently presenting these factors in the form of enablers and inhibitors are not instrument- or trigger-specific (Asselbergh, 2002; Berger and Udell, 2006; Hill et al., 2013; Yan et al., 2016). They are generalised to SCF, irrespective of the SCF mechanisms.

Nonetheless, the enablers that support the adoption of SCF are directly related to the type of SCF instruments. The complete set of enablers and their relationship with the SCF archetypes are provided in Appendix C (see Table C.1). It should be noted that a particular enabler may or may not be common to all the SCF instruments. An enabler such as credit rationing is relevant to all SCF instruments in the archetypes (Seifert et al., 2013; Bryant and Camerinelli, 2014; O'Toole et al., 2015), whilst enablers such as liquidation advantage (Buzacott and Zhang, 2004; Garcia-Teruel and Martinez-Solano, 2010) and monitoring advantage (Hofmann, 2009; Chen and Cai, 2011; Li et al., 2011; Liu et al., 2015) are relevant to instruments under the inventory-centric archetype.

The inhibitors for SCF adoption are also related to the type of SCF instrument being employed. The complete set of inhibitors and their applicability to the SCF archetypes are provided in Appendix C (see Table C.2). Generally, inhibitors are common to all the SCF archetypes apart from an exception related to the introduction timing of SCF (Wuttke et al., 2016), which is categorically applicable to reverse factoring.

5.4 Relationship between supply chain finance archetypes and financial benefits

The financial benefits attained by the various supply chain members taking part in SCF are directly related to the financial performance of the entire supply chain (see section 4.5). Based on the literature, there is not a single constant parametric benefit which the SCF actors (see section 4.1) are attaining by using SCF (Hofmann and Kotzab, 2010; de Boer et al.,

2015; Wandfluh et al., 2016). The financial benefits are different for different participating actors (supply chain members) and these depend upon the level of their participation in a particular SCF instrument, thereby depicting a direct relationship between the SCF archetypes (its associated instruments) and financial benefits for the SCF actors. Appendix D (see Table D.1) presents the table with the relationship between SCF archetypes and the associated financial benefits.

An optimised NWC management (Hofmann and Belin, 2011; Basu and Nair, 2012; Dello Iacono et al., 2015; Wuttke et al., 2016) and improved cash conversion cycle (Hofmann and Kotzab, 2010; Lamoureux and Evans, 2011; More and Basu, 2013; Lorentz et al., 2016) are the most common benefits associated with SCF but the financial benefits vary based on the SCF archetypes. As an example, the fixed-asset financing (fixed asset-centric) archetype is associated with the benefits related to NWC, economic value added, return on investment and lease rent (Berger and Udell, 2006; Camerinelli, 2009; Beck et al., 2008; Elgazzar et al., 2012; Hofmann and Zumsteg, 2015; O'Toole et al., 2015). In comparison, the accounts receivable/accounts payable financing (buyer-centric) archetype results in the benefits related to the cash-to-cash conversion cycle, collaborative cash-to-cash cycle, NWC, transaction cost savings, economic value added, return on investment, service fee, days payable outstanding, and days sales outstanding (Rodríguez-Rodríguez, 2008; Dyckman, 2009; Hofmann and Belin, 2011; Wuttke et al., 2013b; Bryant and Camerinelli, 2014; Kortman et al., 2016; Moritz et al., 2016; Wandfluh et al., 2016). Hence, differentiation in the financial benefits attained by SCF actors is dependent on the set of SCF instruments included in SCF archetypes.

5.5 Summarising the supply chain finance archetypes

This sub-section presents the SCF archetypes along with the corresponding relationships with the identified constructs (see Figure 7). SCF archetypes are based on the chain of evidence

collected from the SLR, in particular, constructs (see Tables 5, 6, 7, 8 and 9) and relationships between the SCF archetypes and the constructs (see Tables 10, 11, C.1, C.2 and D.1).

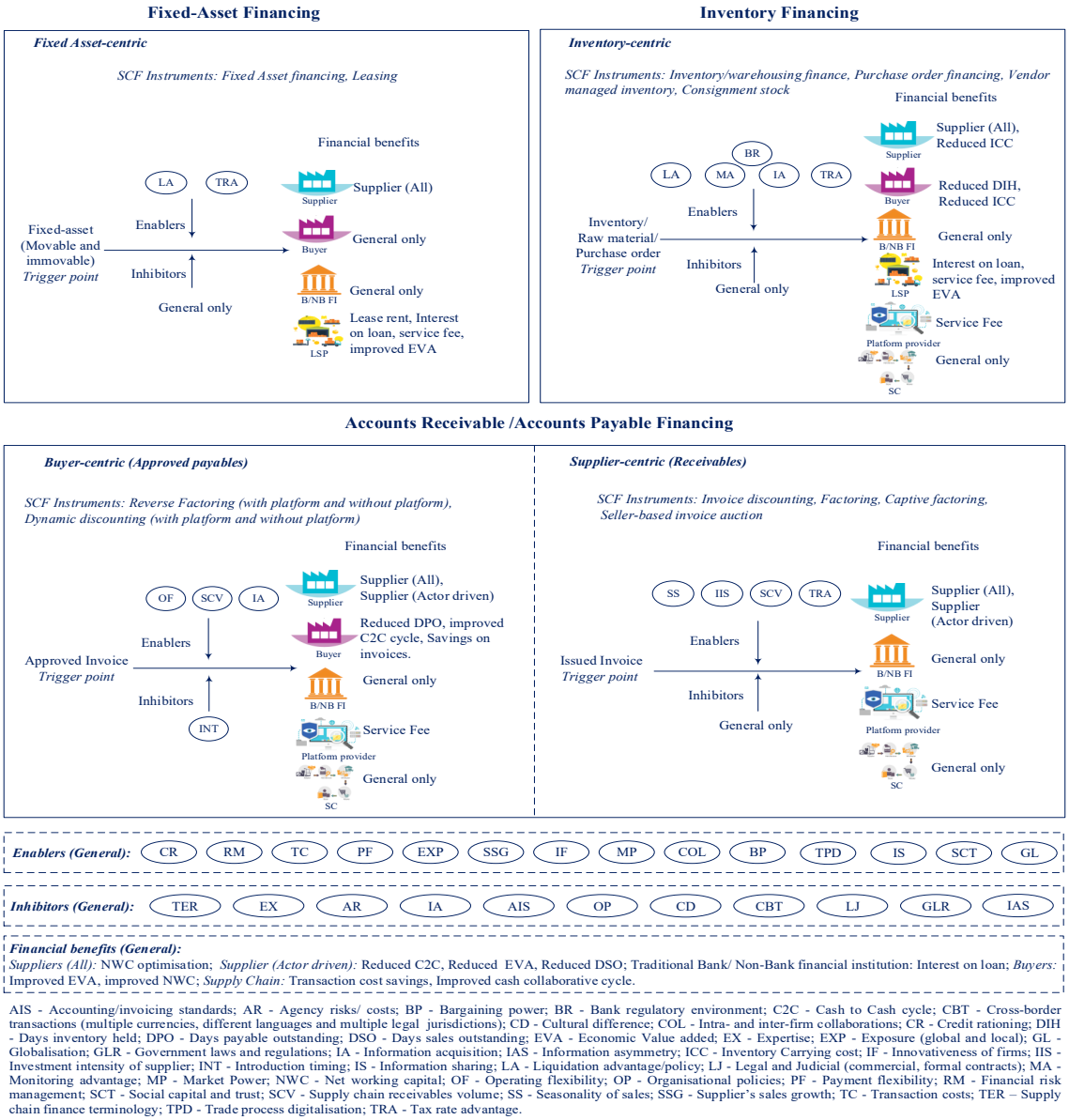

Figure 7 Supply chain finance archetypes

Each archetype comprises a set of SCF instruments, corresponding triggers, enablers, inhibitors, and financial benefits for each of the participating actors. At the top level, archetypes are classified into the three SCF financing categories based on the type of collateral (asset, inventory, and accounts receivables/accounts payable). Among the four archetypes, each can be either actor driven or asset driven. The supplier-centric (receivables)

and buyer-centric (payables) archetypes are actor driven (triggers associated with invoices), whereas inventory-centric and fixed asset-centric are asset driven (triggers associated with inventory, raw material, purchase orders, fixed assets (movable and immovable)). Taking into account the enablers, inhibitors and financial benefits, the group is divided into the general and the specific. It is interesting to note that as the archetype changes the involved SCF actors, the associated benefits change as well. The SCF archetypes developed provide an exemplary look into the relationship between mechanisms, actors and instruments in SCF.

Discussion

The existing literature on SCF lacks the mechanisms to highlight the factors affecting the adoption and implementation of SCF as well as the associated benefits of each of the instruments. The developed SCF archetypes (Fixed-asset financing (fixed asset-centric), inventory financing (inventory-centric), accounts receivable/accounts payable financing (buyer-centric and supplier-centric)) provide a clear understanding of SCF and the involved entities and mechanisms. The SCF archetypes characterise the SCF instruments that different actors (primary and supportive) can implement to improve finances in a supply chain. Furthermore, it has identified the enablers and inhibitors for the implementation of SCF instruments by the different SCF actors.

This SLR makes a valuable contribution to both theory and practice. From the theoretical perspective, it addresses the key gaps in SCF actors, instruments, adoption, triggers and financial benefits. It also contributes to the theoretical foundation by providing a conceptual framework comprising SCF archetypes that can be empirically tested to verify the results of the SLR further, using a case-based approach or qualitative comparative analysis, hence making a significant contribution to the knowledge of various academic stakeholders. From a practitioner's perspective, the contribution is in the form of practical knowledge on evaluating the financial benefits, and the enablers and inhibitors behind the successful

implementation of SCF instruments. Despite the fact that the research has been conducted with academic rigour and reliability, there were certain challenges, which needed to be addressed. Firstly, there are limited number of academic studies focusing on the implementation of SCF instruments, SCF triggers and underlying mechanisms, as most of the business case studies and trade credit literature take into account the processes, triggers and financial benefits. Therefore, the authors considered all types of related business studies and trade credit literature to extract the evidence for this research. Secondly, the literature lacks a standard SCF terminology, especially related to the instruments. To overcome this and avoid any conflict, the most frequently used terms were used.

Conclusion

Based on an SLR, this paper identifies and develops the constructs for exploring the relationship between SCF mechanisms, actors and instruments. The constructs identified are: actors, instruments, processes and triggers, factors for adoption (enablers and inhibitors) and financial benefits. The paper culminates in a conceptual framework (SCF archetypes), which posits the interrelationships between the constructs. This systematic approach in reviewing the literature from publications across operations and technology management, finance, operations research, management science, small business management, information management, economics, econometrics, accounting, international business, sector studies, general management, ethics and social responsibility, brings together the theoretical arguments and findings from a multi-disciplinary body of literature (where 126 publications span 52 journals, one conference paper and six reports from business associations). While the proposed SCF archetypes remain theoretical, this does suggest that, depending on whether the actor is a primary or supportive member in the supply chain, buyer-centric, supplier-centric, inventory centric and fixed-asset centric instruments can be implemented to manage the financing, cash flows and financial benefits. The approach also provides a comprehensive

taxonomy of SCF, SCF instruments and their associated mechanisms. Furthermore, it is now possible to test them and understand their relative significance, thereby providing opportunities for further research and development.

Acknowledgement

This research is supported by the Nederlandse Organisatie voor Wetenschappelijk Onderzoek.

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Appendices

Appendix A Review advisory panel details

Table A.1 Review advisory panel

Panel Member	Background	Role in the review
1.	Academic with 30 years of experience in SCM and 10 years in SCF.	• Feedback during the planning and execution phase on: SLR protocol, search strategy, location of relevant studies, quality of constructs and nomenclature of SCF archetypes. • Participation in inclusion and exclusion criteria, selection of papers not fulfilling the inclusion and exclusion criteria.
2.	Academic with 24 years of experience in SCM and 8 years in SCF and trade credit.	• Feedback during the planning and execution phase on: SLR protocol, search strategy, location of relevant studies, quality of the constructs and nomenclature of SCF archetypes. • Participation in inclusion and exclusion criteria, selection of papers not fulfilling the inclusion and exclusion criteria.
3.	Academic with 15 years of experience in SCM and 10 years as a practitioner implementing SCM programmes.	• Feedback during the planning and execution phase on: SLR protocol, search strategy, quality of the constructs and nomenclature of SCF archetypes. • Participation in inclusion and exclusion criteria, selection of papers not fulfilling the inclusion and exclusion criteria and business reports.
4.	Academic with 9 years of experience in SCM.	• Feedback during the planning and execution phase on: SLR protocol, search strategy, location of relevant studies, quality of the constructs. • Participation in inclusion and exclusion criteria, selection of papers not fulfilling the inclusion and exclusion criteria.
5.	Academic with 8 years of experience in SCF.	• Feedback during the planning and execution phase on: SLR protocol, search strategy, location of relevant studies, quality of the constructs and nomenclature of SCF archetypes. • Participation in inclusion and exclusion criteria, selection of papers not fulfilling the inclusion and exclusion criteria.
6.	Practitioner with 8 years of experience in implementing SCF programmes across Europe and China as a consultant.	• Feedback during the planning and execution phase on: Quality of the constructs and nomenclature of SCF archetypes. • Participation in selection of business reports.

Appendix B Data extraction form

Available on request

Appendix C Relationship between Supply chain finance archetypes and adoption

Table C.1 Relationship between supply chain finance archetypes and enablers (all the references are from SLR)

Enablers/Archetypes	Accounts receivable/accounts payable financing		Inventory financing	Fixed-asset financing
	Supplier-centric (Receivables)	Buyer-centric (Approved payables)	Inventory-centric	Fixed asset-centric
Credit rationing	Seifert et al., 2013; Bryant and Camerinelli, 2014; O'Toole et al., 2015	Seifert et al., 2013; Bryant and Camerinelli, 2014	Seifert et al., 2013; Bryant and Camerinelli, 2014	Seifert et al., 2013; Bryant and Camerinelli, 2014; O'Toole et al., 2015
Financial risk Management	Asselbergh, 2002; de Meijer and de Bruijn, 2013; Bryant and Camerinelli, 2014; Caniato et al., 2016; Extra et al., 2016; Gelsomino et al., 2016	de Meijer and de Bruijn, 2013; Wuttke et al., 2013b; Bryant and Camerinelli, 2014; Caniato et al., 2016; Extra et al., 2016; Gelsomino et al., 2016; Liebl et al., 2016; Templar et al., 2016; Wandfluh et al., 2016	Hofmann and Kotzab, 2010; Li et al., 2011; Jing et al., 2012; de Meijer and de Bruijn, 2013; Wuttke et al., 2013b; Bryant and Camerinelli, 2014; Liu et al., 2015; Extra et al., 2016; Song et al., 2016a; Wandfluh et al., 2016	Jing et al., 2012; Bryant and Camerinelli, 2014
Transaction costs	Asselbergh, 2002; Moritz et al., 2016	Dyckman, 2009; Wuttke et al., 2013b; Kortman et al., 2016; Moritz et al., 2016; Wandfluh et al., 2016	Wuttke et al., 2013b; Moritz et al., 2016; Wandfluh et al., 2016	Moritz et al., 2016
Payment flexibility	Extra et al., 2016	Seifert and Seifert, 2011; Extra et al., 2016	Extra et al., 2016	-
Liquidation advantage/policy	-	-	Buzacott and Zhang, 2004; García-Teruel and Martínez-Solano, 2010	-
Monitoring advantage	-	-	Hofmann, 2009; Chen and Cai, 2011; Li et al., 2011; Liu et al., 2015; Templar et al., 2016	-
Exposure (global and local)	Lamoureux and Evans, 2011; Extra et al., 2016	Lamoureux and Evans, 2011; Extra et al., 2016	Lamoureux and Evans, 2011; Wuttke et al., 2016; Extra et al., 2016	-
Operating flexibility	-	Lekkakos and Serrano, 2016	-	-
Seasonality of sales	Ng et al., 1999; Asselbergh, 2002	-	-	-
Supplier's sales growth	Asselbergh, 2002; Extra et al., 2016	Extra et al., 2016	Extra et al., 2016	-
Investment intensity of supplier	Asselbergh, 2002	-	-	-
Supply chain receivables volume	Dello Iacono et al., 2015	Dello Iacono et al., 2015	-	-
Innovativeness of firms	Moritz et al., 2016	Moritz et al., 2016	Moritz et al., 2016	Moritz et al., 2016

Intra- and inter-firm collaborations	Mateen and More, 2013; More and Basu, 2013; de Meijer and de Bruijn, 2013; Caniato et al., 2016; Extra et al., 2016	de Meijer and de Bruijn, 2013; Mateen and More, 2013; More and Basu, 2013; Wuttke et al., 2013b; Bryant and Camerinelli, 2014; Caniato et al., 2016; Extra et al., 2016; Kortman et al., 2016; Wandfluh et al., 2016	Buzacott and Zhang, 2004; de Meijer and de Bruijn, 2013; Mateen and More, 2013; More and Basu, 2013; Wuttke et al., 2013b; Yan and Sun, 2013; Bryant and Camerinelli, 2014; Caniato et al., 2016; Extra et al., 2016; Wandfluh et al., 2016	Buzacott and Zhang, 2004; Mateen and More, 2013; More and Basu, 2013; Bryant and Camerinelli, 2014; Caniato et al., 2016
Globalisation	de Meijer and de Bruijn, 2013; Extra et al., 2016	Hofmann and Belin, 2011; de Meijer and de Bruijn, 2013; Extra et al., 2016	Hofmann and Belin, 2011; Extra et al., 2016	Extra et al., 2016
Market Power	Berger and Udell, 2006; Bryant and Camerinelli, 2014	Wuttke et al., 2013a; Liebl et al., 2016	Berger and Udell, 2006	Berger and Udell, 2006
Bargaining Power	Caniato et al., 2016	Wuttke et al., 2013b; Caniato et al., 2016; Liebl et al., 2016	Wuttke et al., 2013b; Caniato et al., 2016	Caniato et al., 2016
Trade process digitalisation	Lamoureux and Evans, 2011; de Meijer and de Bruijn, 2013; Mateen and More, 2013; More and Basu, 2013; Bryant and Camerinelli, 2014; Extra et al., 2016	Hofmann and Belin, 2011; Lamoureux and Evans, 2011; de Meijer and de Bruijn, 2013; More and Basu, 2013; Wuttke et al., 2013a; Mateen and More, 2013; Bryant and Camerinelli, 2014; Caniato et al., 2016; Extra et al., 2016; Kortman et al., 2016	Hofmann and Belin, 2011; Lamoureux and Evans, 2011; de Meijer and de Bruijn, 2013; Mateen and More, 2013; More and Basu, 2013; Bryant and Camerinelli, 2014; Caniato et al., 2016; Extra et al., 2016	Mateen and More, 2013; More and Basu, 2013; Bryant and Camerinelli, 2014; Caniato et al., 2016
Information acquisition	-	Dyckman, 2009; Seifert and Seifert, 2011; Wuttke et al., 2013a	Song et al., 2016a	-
Information-sharing	Berger and Udell, 2006; de Meijer and de Bruijn, 2013; More and Basu, 2013; Extra et al., 2016	Dyckman, 2009; More and Basu, 2013; de Meijer and de Bruijn, 2013; Wuttke et al., 2013a; Extra et al., 2016; Wandfluh et al., 2016	Berger and Udell, 2006; de Meijer and de Bruijn, 2013; More and Basu, 2013; Extra et al., 2016; Song et al., 2016a; Wandfluh et al., 2016	Berger and Udell, 2006; More and Basu, 2013
Social capital and trust	Berger and Udell, 2006; Li et al., 2011; Mateen and More, 2013; More and Basu, 2013; Liu et al., 2015; Caniato et al., 2016; Moritz et al., 2016	Mateen and More, 2013; More and Basu, 2013; Popa, 2013; Wuttke et al., 2013a; Caniato et al., 2016; Liebl et al., 2016; Moritz et al., 2016	Berger and Udell, 2006; Sugirin, 2009; Leng and Zailani, 2012; Mateen and More, 2013; More and Basu, 2013; Talonpoika et al., 2014; Zhang et al., 2014; Caniato et al., 2016; Moritz et al., 2016	Berger and Udell, 2006; Mateen and More, 2013; More and Basu, 2013; Caniato et al., 2016; Moritz et al., 2016
Tax rate advantage	Asselbergh, 2002	-	Buzacott and Zhang, 2004	Buzacott and Zhang, 2004
Bank regulatory environment	-	-	Yan and Sun, 2013	-

Table C.2 Relationship between supply chain finance archetypes and Inhibitors (all the references are from SLR)

Inhibitors/Archetypes	Accounts receivable / accounts payable financing		Inventory financing	Fixed-asset financing
	Supplier-centric (Receivables)	**Buyer-centric (Approved payables)**	**Inventory-centric**	**Fixed Asset-centric**
SCF Terminology	de Meijer and de Bruijn, 2013; Bryant and Camerinelli, 2014; Extra et al., 2016	de Meijer and de Bruijn, 2013; Bryant and Camerinelli, 2014; de Boer et al., 2015; Extra et al., 2016	de Meijer and de Bruijn, 2013; Bryant and Camerinelli, 2014; Extra et al., 2016; Song et al., 2016b	Bryant and Camerinelli, 2014
Expertise	Mateen and More, 2013; More and Basu, 2013; BAFT et al., 2016; Extra et al., 2016	Mateen and More, 2013; More and Basu, 2013; BAFT et al., 2016; Extra et al., 2016; Liebl et al., 2016; Templar et al., 2016	Mateen and More, 2013; More and Basu, 2013; BAFT et al., 2016; Extra et al., 2016	Mateen and More, 2013; More and Basu, 2013
Introduction timing	-	Wuttke et al., 2016	-	-
Agency risks/costs	Hill et al., 2013; Moritz et al., 2016	Hill et al., 2013; Moritz et al., 2016	Hill et al., 2013; Moritz et al., 2016	Hill et al., 2013; Moritz et al., 2016
Information asymmetry	Lamoureux and Evans, 2011; Moritz et al., 2016	Lamoureux and Evans, 2011; Moritz et al., 2016; Wandfluh et al., 2016	Buzacott and Zhang, 2004; Lamoureux and Evans, 2011; Moritz et al., 2016; Wandfluh et al., 2016	Buzacott and Zhang, 2004; Moritz et al., 2016
Accounting/invoicing standards	BAFT et al., 2016; Extra et al., 2016; Templar et al., 2016	Bryant and Camerinelli, 2014; BAFT et al., 2016; Extra et al., 2016; Templar et al., 2016	Hofmann and Kotzab, 2010; Bryant and Camerinelli, 2014; BAFT et al., 2016; Extra et al., 2016; Templar et al., 2016	Bryant and Camerinelli, 2014
Organisational policies	de Meijer and de Bruijn, 2013; More and Basu, 2013	de Meijer and de Bruijn, 2013; More and Basu, 2013	de Meijer and de Bruijn, 2013; More and Basu, 2013	More and Basu, 2013
Cultural difference	de Meijer and de Bruijn, 2013; Mateen and More, 2013; More and Basu, 2013; Moritz et al., 2016	Camerinelli, 2009; de Meijer and de Bruijn, 2013; Mateen and More, 2013; More and Basu, 2013; Moritz et al., 2016; Wandfluh et al., 2016	Camerinelli, 2009; de Meijer and de Bruijn, 2013; Mateen and More, 2013; More and Basu, 2013; Moritz et al., 2016	Mateen and More, 2013; More and Basu, 2013; Moritz et al., 2016
Cross-border transactions (multiple currencies, different languages and multiple legal jurisdictions)	Mateen and More, 2013; More and Basu, 2013	Mateen and More, 2013; More and Basu, 2014	Mateen and More, 2013; More and Basu, 2015	Mateen and More, 2013; More and Basu, 2016

Legal and Judicial (commercial, formal contracts)	Berger and Udell, 2006; Klapper, 2006; de Meijer and de Bruijn, 2013; Extra et al., 2016; Moritz et al., 2016	de Meijer and de Bruijn, 2013; Extra et al., 2016; Moritz et al., 2016	Berger and Udell, 2006; de Meijer and de Bruijn, 2013; Extra et al., 2016; Moritz et al., 2016	Berger and Udell, 2006; Moritz et al., 2016
Government laws and regulations	Klapper, 2006; de Meijer and de Bruijn, 2013; More and Basu, 2013; Yiu et al., 2013; BAFT et al., 2016; Extra et al., 2016; Moritz et al., 2016	de Meijer and de Bruijn, 2013; More and Basu, 2013; Yiu et al., 2013; de Boer et al., 2015; BAFT et al., 2016; Extra et al., 2016; Liebl et al., 2016; Moritz et al., 2016	de Meijer and de Bruijn, 2013; More and Basu, 2013; Yiu et al., 2013; BAFT et al., 2016; Extra et al., 2016; Moritz et al., 2016	More and Basu, 2013; Yiu et al., 2013; Moritz et al., 2016

Appendix D Relationship between Supply chain finance archetypes and financial benefits

Table D.1 Relationship between supply chain finance archetypes and financial benefits (all the references are from SLR)

Financial benefits/Archetypes	**Accounts receivable / accounts payable financing**		**Inventory financing**	**Fixed-asset financing**
	Supplier-centric (Receivables)	**Buyer-centric (Approved payables)**	**Inventory-centric**	**Fixed Asset-centric**
Cash conversion cycle/Cash-to-cash cycle	Reiner and Hofmann, 2006; Demica, 2007; Tsai, 2008; Camerinelli, 2009; Hofmann and Kotzab, 2010; Hofmann and Belin, 2011, Lamoureux and Evans, 2011; Tsai, 2011; More and Basu, 2013; Popa, 2013; Talonpoika et al., 2014; Bryant and Camerinelli, 2014; de Boer et al., 2015; Hofmann and Zumsteg, 2015; Huff and Rogers, 2015; Caniato et al., 2016; Extra et al., 2016; GBI, 2016; Gelsomino et al., 2016; Lorentz et al., 2016	Reiner and Hofmann, 2006; Demica, 2007; Tsai, 2008; Camerinelli, 2009; Hofmann and Kotzab, 2010; Hofmann and Belin, 2011, Lamoureux and Evans, 2011; Tsai, 2011; More and Basu, 2013; Popa, 2013; Talonpoika et al., 2014; Bryant and Camerinelli, 2014; de Boer et al., 2015; Dello Iacono et al., 2015; Hofmann and Zumsteg, 2015; Huff and Rogers, 2015; Caniato et al., 2016; Extra et al., 2016; GBI, 2016; Gelsomino et al., 2016; Lorentz et al., 2016	-	-
Collaborative Cash-to-Cash Cycle	Hofmann and Kotzab, 2010; de Boer et al., 2015; Wandfluh et al., 2016	Hofmann and Kotzab, 2010; de Boer et al., 2015; Wandfluh et al., 2016	Hofmann and Kotzab, 2010; de Boer et al., 2015; Wandfluh et al., 2016	-
Net working capital	Berger and Udell, 2006; Klapper, 2006; Demica, 2007; Sadlovska, 2007; Dyckman, 2009; Hofmann and Belin, 2011; Protopappa-Sieke and Seifert, 2011; de Meijer and de Bruijn, 2013; BAFT et al., 2016; Caniato et al., 2016; Gelsomino et al., 2016; Extra et al., 2016	Demica, 2007; Sadlovska, 2007; Dyckman, 2009; Hofmann and Belin, 2011; Protopappa-Sieke and Seifert, 2011; Seifert and Seifert, 2011; Basu and Nair, 2012; de Meijer and de Bruijn, 2013; Wuttke et al., 2013; Bryant and Camerinelli, 2014; Dello Iacono et al., 2015; BAFT et al., 2016; Caniato et al., 2016; Extra et al., 2016; Gelsomino et al., 2016; Kortman et al., 2016; Lekkakos and Serrano, 2016; Liebl et al., 2016; Wandfluh et al., 2016; Wuttke et al.,	Berger and Udell, 2006; Demica, 2007; Sadlovska, 2007; Dyckman, 2009; Hofmann, 2009; Pfohl and Gomm, 2009; Hofmann and Belin, 2011; Lee and Rhee, 2011; Protopappa-Sieke and Seifert, 2011; de Meijer and de Bruijn, 2013; Wuttke et al., 2013; Yan and Sun, 2013; Bryant and Camerinelli, 2014; Huff and Rogers, 2015; BAFT et al., 2016; Caniato et al., 2016; Extra et al., 2016; Gelsomino et al., 2016; Wandfluh	Demica, 2007; Sadlovska, 2007; Dyckman, 2009; Hofmann and Belin, 2011; Protopappa-Sieke and Seifert, 2011; Caniato et al., 2016; Extra et al., 2016; Gelsomino et al., 2016

		2016; Martin and Hofmann, 2017	et al., 2016	
Transaction cost savings	Rodríguez-Rodríguez, 2008; Hofmann and Belin, 2011; Moritz et al., 2016	Rodríguez-Rodríguez, 2008; Dyckman, 2009; Hofmann and Belin, 2011; Wuttke et al., 2013; Bryant and Camerinelli, 2014; Kortman et al., 2016; Moritz et al., 2016; Wandfluh et al., 2016	Rodríguez-Rodríguez, 2008; Hofmann and Belin, 2011	-
Economic Value Added	Camerinelli, 2009; Elgazzar et al., 2012; Hofmann and Zumsteg, 2015	Camerinelli, 2009; Elgazzar et al., 2012; Hofmann and Zumsteg, 2015	Camerinelli, 2009; Elgazzar et al., 2012; Hofmann and Zumsteg, 2015	Camerinelli, 2009; Elgazzar et al., 2012; Hofmann and Zumsteg, 2015
Return on Investment (interest on loan)	BAFT et al., 2016	BAFT et al., 2016	Hofmann, 2009; Chen and Cai, 2011; BAFT et al., 2016	BAFT et al., 2016
Lease rent	-	-	-	Buzacott and Zhang, 2004; Berger and Udell, 2006; Beck et al., 2008; O'Toole et al., 2015; Templar et al., 2016
Service fee	Bryant and Camerinelli, 2014	Bryant and Camerinelli, 2014	Bryant and Camerinelli, 2014	Bryant and Camerinelli, 2014
Days Inventory Held	-	-	Hofmann, 2009; Huff and Rogers, 2015	-
Inventory Carrying Costs	-	-	Pfohl and Gomm, 2009; BAFT et al., 2016; Caniato et al., 2016; Gelsomino et al., 2016; Templar et al., 2016	-
Days Payable Outstanding	-	Sadlovska, 2007; Dyckman, 2009; Hofmann and Belin, 2011; Dello Iacono et al., 2015; Huff and Rogers, 2015; van der Vliet et al. 2015; BAFT et al., 2016; Extra et al., 2016	-	-
Savings on invoices	-	Dello Iacono et al., 2015; Extra et al., 2016	-	-
Days Sales Outstanding	Sadlovska, 2007; Dyckman, 2009; Hofmann and Belin, 2011; Huff and Rogers, 2015; Extra et al., 2016	Sadlovska, 2007; Dyckman, 2009; Hofmann and Belin, 2011; Bryant and Camerinelli, 2014; Dello Iacono et al., 2015; Huff and Rogers, 2015; van der Vliet et	-	-

	al. 2015; BAFT et al., 2016; Extra et al., 2016